

**A WIRELESS TELEPHONE SYSTEM WITH BOTH CORDLESS SHORT  
RANGE COMMUNICATION AND LONG RANGE MOBILE  
WIRELESS CELLULAR TELEPHONE COMMUNICATION**

**Abstract**

5        Cordless and wireless telephone communication  
functions are combined in a unitary wireless telephone  
system that comprises a mobile wireless telephone member  
combining short range radio frequency communication  
implementation for transmitting and receiving voice data  
10 over a short range, with long range radio frequency  
communication implementation for transmitting and  
receiving voice data over a long range. The system also  
includes stationary communication means for receiving and  
transmitting voice data from and to the mobile wireless  
15 member voice data over said short range and stationary  
communication means for respectively receiving and  
transmitting voice data from and to the mobile wireless  
member voice data over said long range.

20        The system may also include an implementation for  
determining whether said mobile wireless telephone member  
is outside said short range when said member is receiving  
or transmitting said voice data, together with an  
implementation for communicating with said mobile  
wireless telephone member through said stationary short  
25 range radio frequency whenever said member is determined  
not to be outside of the short range and an  
implementation for communicating with said mobile  
wireless telephone member through the stationary long  
range radio frequency implementation whenever said member  
30 is determined to be outside of said short range.